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THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

Edited by

FRANCIS HEMMING, C.M.G., C.B.E.

Secretary to the International Commission on Zoological Nomenclature

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INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

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Secretariat of the Commission : 28, Park Village East, Regent's Park, London, N.W.1
Offices of the Trust : 41, Queen's Gate, London, S.W.7

BULLETIN OF ZOOLOGICAL NOMENCLATURE

Volume 2, Part 1 (pp. 1-32) 20th April 1951

NOTICES PRESCRIBED BY THE INTERNATIONAL CONGRESS OF ZOOLOGY

The following notices are given in pursuance of decisions taken, on the recommendation of the International Commission on Zoological Nomenclature (see 1950, *Bull. zool. Nomencl.* **4** : 51–56, 57–59), by the Thirteenth International Congress of Zoology, Paris, July 1948 (see 1950, *Bull. zool. Nomencl.* **5** : 5–13, 131).

(a) Date of commencement by the International Commission on Zoological Nomenclature of voting on applications published in the "Bulletin of Zoological Nomenclature"

NOTICE is hereby given that normally the International Commission will start to vote upon applications published in the *Bulletin of Zoological Nomenclature* on the expiry of a period of six calendar months from the date of publication in the *Bulletin* of the applications in question. Any specialist who may desire to comment upon any of the applications published in the present Part (vol. 2, Part 1) of the *Bulletin* is accordingly invited to do so in writing to the Secretary to the Commission as quickly as possible and, in any case, in sufficient time to enable the communication in question to reach the Secretariat of the Commission before the expiry of the six-month period referred to above.

(b) Notice of the possible use by the International Commission on Zoological Nomenclature of its plenary powers in certain cases

1. NOTICE is hereby given that the possible use by the International Commission on Zoological Nomenclature of its plenary powers, is involved in applications published in the present Part of the *Bulletin of Zoological Nomenclature* in relation to the following names :—

(1) *Pleurocera* Rafinesque, 1818 (Class Gastropoda) (Z.N.(S.)83).
(2) *Aphidius* Nees, 1818 (Class Insecta, Order Hymenoptera) (Z.N.(S.) 149).
(3) Trivial name *ajax* Linnaeus, 1758 (as published in the binominal combination *Papilio ajax*) (Class Insecta, Order Lepidoptera) (Z.N.(S.)192).
(4) *Mytilus* Linnaeus, 1758 (Class Pelecypoda, Order Filibranchiata (proposed validation of an error in *Opinion* 94) (Z.N.(S.)193).

2. Comments received in sufficient time will be published in the *Bulletin* ; other comments, provided that they are received within the prescribed period of six calendar months from the date of publication of the present Part will

Notices prescribed by the International Congress of Zoology (*continued*)

be laid before the International Commission on Zoological Nomenclature at the time of commencement of voting on the application concerned.

3. In accordance with the arrangement agreed upon at the Session held by the International Commission on Zoological Nomenclature in Paris in 1948 (see 1950, *Bull. zool. Nomencl.* **4** : 56) corresponding Notices have been sent to the journals " Nature " and " Science."

FRANCIS HEMMING,
Secretary to the International Commission on Zoological Nomenclature.

Secretariat of the International
Commission on Zoological Nomenclature,
28, Park Village East, Regent's Park,
LONDON, N.W.1, England.
10*th April*, 1951.

PRINCIPLES ADOPTED IN THE SELECTION OF APPLICATIONS FOR IMMEDIATE PUBLICATION IN THE " BULLETIN OF ZOOLOGICAL NOMENCLATURE "

Decisions taken by the International Commission on Zoological Nomenclature

1. In the latter part of the year 1950, the International Commission had under consideration the question of the principles to be adopted in the selection of applications for immediate publication in the *Bulletin of Zoological Nomenclature*. This matter clearly required careful consideration, for at the date in question (31st October, 1950), it was estimated that there were about 270 applications awaiting consideration ; it was evident that the publication of this large body of applications would inevitably require a considerable period of time (both because of the fact that the Commission possessed no assured annual income and also because it possessed no whole-time salaried staff and had, therefore, to rely for the discharge of the whole of the work of the Secretariat upon its honorary spare-time officers). Accordingly, in any given case the date on which a decision would be taken by the Commission would necessarily turn to a considerable extent upon the order selected for the publication of the applications awaiting consideration by the International Commission.

2. As the result of the consideration of this question, the International Commission on Zoological Nomenclature decided that the selection of applications for immediate publication in the *Bulletin of Zoological Nomenclature* was to be made in accordance with the following principles and requested the Secretary to the Commission to proceed accordingly :—

(1) Subject to the qualification noted in paragraph 3 below, applications are, so far as practicable, to be published in the order in which they were originally received, except where this would interfere with the prompt publication of applications falling in the classes specified in (2) below.

(2) Preference is to be given to applications which for any reason are of exceptional urgency, such as applications falling in the following

classes :—

(*a*) applications relating to matters which the International Commission has indicated or may in the future, indicate are to be treated as of exceptional urgency, *e.g.*, applications submitted, in accordance with the invitation issued by the International Commission at its Paris Session, with the object of putting an end to the confusion in the nomenclature of the Order Diptera (Class Insecta) arising out of the long-standing controversy regarding the names published by Meigen in 1800 in his *Nouvelle Classification des Mouches à deux Ailes* (see *Bull. zool. Nomencl.* **4** : 558);

(*b*) applications on which decisions are needed as a preliminary to the publication of important books, *e.g.*, the *Treatise on Invertebrate Paleontology*, now in preparation under the General Editorship of Professor Raymond C. Moore (University of Kansas);

(*c*) applications relating to well-known names suddenly threatened by the excavation of long-forgotten and totally overlooked names.

3. Applications received by the International Commission range from (1) applications which (*a*) contain all the data (including bibliographical references) necessary to enable the Commission to reach a decision on the question submitted and (*b*) which are presented in the desired manner, that is, typed, double-spaced, on one side of the page only and with wide margins, and furnished in duplicate, to (2) applications which comply with some only, or with none, of the foregoing requirements. Applications of the latter kind involve a considerable amount of correspondence with specialists and/or additional clerical and typing work in the Secretariat, before they can be submitted to the Commission ; the Commission has accordingly decided that, while every effort should be made to complete applications of this kind as rapidly as possible, the publication of later applications submitted with all the necessary particulars is not to be held up, while this is being done.

4. Applications are given Registered Numbers in the Z.N. (S.) Series immediately upon receipt. Normally therefore, the relative date of receipt of any two applications may be determined in this way. It should be noted however, that this is not always the case ; for (1) preliminary enquiries and tentative applications are sometimes registered initially in the Z.N. (G.) Series, until it is clear that an application is going to be made ; (2) Some applications, when received, deal with more than one subject and it is sometimes found convenient at a later stage, to break up such applications, assigning a separate Registered Number to each of the component items, with the result that the applications so separated bear a higher number than would correspond to their original date of receipt.

FRANCIS HEMMING,
Secretary to the International Commission on Zoological Nomenclature,

1*st March*, 1951.

PERSONNEL OF THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

Death of Commissioner Paul Rode

The International Commission on Zoological Nomenclature much regret to announce the death of their colleague Commissioner Paul Rode (France).

Retirement of Commissioner Karl Jordan

The International Commission on Zoological Nomenclature much regret to announce that in May, 1950, they were informed by Commissioner (and Honorary Life President) Karl Jordan (United Kingdom) that on account of age and increasing deafness he had decided to resign his active Membership of the Commission. The Commission felt bound to respect Commissioner Jordan's wishes in this matter. They are, however, happy to think that there will be no break on this account in their close association with Dr. Jordan, an association which began thirty-seven years ago when at Monaco in 1913 he was elected a Member of the Commission and which became still closer when in 1929 he was elected to be their President in succession to the late Professor F. Monticelli (Italy), for, although Dr. Jordan is no longer an active Member of the Commission, he retains the Office of Honorary Life President, to which he was elected by acclamation by the Thirteenth International Congress of Zoology at its meeting held in Paris in July, 1948.

Personnel of the International Commission on Zoological Nomenclature (*continued*)

Election of Commissioners

In accordance with the procedure prescribed by the Thirteenth International Congress of Zoology, Paris, July, 1948, the following elections to the Membership of the Commission have been made by the Executive Committee of the Commission, with effect from the dates severally specified below :—

Teiso Esaki (Japan), Professor of Entomology, Kyushu University, Kyushu (re-election) (17th April, 1950).

Pierre Bonnet (France), Professor of Zoology, University of Toulouse (9th June, 1950).

Norman Denbigh Riley (United Kingdom), Keeper, Department of Entomology, British Museum (Natural History), London (9th June, 1950).

Tadeusz Jaczewski (Poland), Professor of Entomology, University of Warsaw, Warsaw (re-election) (15th June, 1950).

Robert Mertens (Germany), Professor, Natur-Museum Senckenberg der Senckenbergische Naturforschende Gesellschaft, Frankfurt a. Main (5th July, 1950).

Erich Martin Hering (Germany), Professor, Zoologisches Museum der Universität, Berlin (5th July, 1950).

FRANCIS HEMMING,

Secretary to the International Commission on Zoological Nomenclature.

Secretariat of the Commission :
28, Park Village East, Regent's Park,
London, N.W.1, England.

1st December, 1950.

REPORT ON THE QUESTION WHETHER, IN ORDER TO AVOID CONFUSION IN NOMENCLATURE, IT IS DESIRABLE THAT THE PLENARY POWERS SHOULD BE USED BY THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE TO VARY THE TYPE SPECIES OF THE GENUS "PLEUROCERA" RAFINESQUE, 1818 (CLASS GASTROPODA, ORDER MESOGASTROPODA)

By FRANCIS HEMMING, C.M.G., C.B.E.
(*Secretary to the International Commission on Zoological Nomenclature*)

(Commission's reference Z.N.(S.)83)

I. Statement of the case

1. The purpose of the present Report is to examine the question whether or not it is desirable that, in order to avoid confusion in nomenclature, the International Commission on Zoological Nomenclature should use its plenary powers for the purpose of designating, as the type species of the genus *Pleurocera* Rafinesque, 1818, the species (*Pleurocera acuta* Rafinesque, 1831), which for nearly eighty years has been accepted as the type species or whether the general interest would be better served by accepting as the type species the species (*Pleurocera verrucosa* Rafinesque, 1820), which is undoubtedly the type species under the *Règles*, but which is regarded by interested specialists as being referable to a genus distinct from *Pleurocera* Rafinesque as currently understood.

2. The facts of this case are as follows :—

(1) The generic name *Pleurocera* Rafinesque, 1818 (*Amer. mon. Mag.* **3** : 355) was published with a generic diagnosis ; no type species was designated or indicated ; the names of six new nominal species were cited under the generic name *Pleurocera*, but no description, definition or other " indication " was given for any of these nominal species. The names so used by Rafinesque are therefore *nomina nuda* and accordingly have no bearing on the choice of the species to be selected as the type species of the genus.

(2) In 1819 (*J. Phys. Bruxelles* **87** : 423) Rafinesque gave a revised definition of the genus *Pleurocera* Rafinesque, 1818, but he did not, when doing so, cite the name of any nominal species as being referable to this genus.

(3) It was not until 1820 that the name of a nominal species possessing rights under the Law of Priority was cited as belonging to the genus *Pleurocera* Rafinesque, 1818. This was when Rafinesque himself published the specific name *Pleurocera verrucosa* Rafinesque, 1820 (*Ann. Nat.* **1820** : 11) and characterised the nominal species so named.

(4) In 1831, Rafinesque (*Enum. Account* : 2) published the name *Pleurocera acuta* as the name of a new nominal species, which he duly characterised.

(5) In 1864, Tryon brought into use the name *Pleurocera* Rafinesque, 1818, which until then had been neglected. As so reintroduced by Tryon, the generic name *Pleurocera* Rafinesque applied to the group of species which includes the species *Pleurocera acuta* Rafinesque, 1831.

(6) In 1912, Hannibal (*Proc. malac. Soc. Lond.* **10** : 169) selected *Pleurocera verrucosa* Rafinesque, 1820, as the type species of the genus *Pleurocera* Rafinesque, 1818.

(7) In 1917, Pilsbry (*Nautilus* **30** : 110) accepted the action taken by Hannibal in 1912.

(8) In 1917, following upon the foregoing paper by Pilsbry, Bryant Walker (*Occasional Papers Mus. Zool. Univ. Mich.* **38** : 10) argued that the conclusion reached by Hannibal (1912) and Pilsbry (1917) was not in conformity with the ruling given in the Commission's *Opinion* 46 and that, under a correct reading of that ruling, the type species of *Pleurocera* Rafinesque, 1818, was under the *Règles* not *Pleurocera verrucosa* Rafinesque, 1820 (as alleged by Hannibal and Pilsbry) but *Pleurocera acuta* Rafinesque, 1831.

3. In spite of having in 1917 accepted Hannibal's view that *Pleurocera verrucosa* Rafinesque was the type species of the genus *Pleurocera* Rafinesque, Dr. H. A. Pilsbry (Academy of Sciences, Philadelphia, Pennsylvania, U.S.A.) must have felt doubts about the wisdom of disturbing the uninterrupted practice of the preceding 50 years, for in 1925 he decided to refer this question to the International Commission on Zoological Nomenclature with a view to obtaining a decision by which to guide himself in a book which he was then engaged in writing. Accordingly, on 15th January, 1925, Dr. Pilsbry addressed a letter, with enclosures, on this subject to the Secretary to the Commission. In his covering letter, Dr. Pilsbry, after explaining that at that stage he was concerned only to obtain from Dr. Stiles a preliminary opinion on the question of the type species of the genus *Pleurocera* on the basis of the documents enclosed with his letter, proceeded as follows :—

If you think *P. acuta* can stand as type, I will accept that in a work I have in hand without further discussion, as this will not modify the usage current for fifty years. But, if you think that *P. verrucosa* will have to stand as type, I will expand the statement and submit to the Commission, in order to have authority for making a change in the names of two well-known genera.

4. The following is the text of the two documents enclosed with Dr. Pilsbry's letter of 15th January, 1925 :

(1) *Enclosure No.* 1 *to Dr. Pilsbry's letter of* 15*th January,* 1925.

Type of *Pleurocera* Raf.

The terms of Rafinesque's original diagnosis of *Pleurocera*, 1818, were sufficiently general to cover species of several subsequent genera, such as *Augitrema* Hald. or *Trypanostoma* Lea. He mentioned several species but none of them was ever described or recognised otherwise. In 1819, he redefined the genus in terms fully applicable to the later genus *Trypanostoma*.

In 1820 Rafinesque described *Pleurocera verrucosa*, a species which might fall within the very general terms of his first definition of *Pleurocera*, but it would certainly be excluded from

Pleurocera as redefined in 1819. This species was designated type of *Pleurocera* by Hannibal in 1912. It was the first species described under that generic name.

In 1831 Rafinesque described three species of *Pleurocera*, of which one, *P. acuta* of Lake Erie, is a well-known mollusk, clearly identical with the later *Trypanostoma subulare* Lea, described from Niagara River. *P. acuta* agrees fully with Rafinesque's generic definitions. *P. acuta* was designated type of *Pleurocera* by Walker (*Occ. Pap. Mus. Zool. Univ. Mich.* No. 38, p. 9, 1917). He took the ground that Rafinesque erred in referring the species *verrucosa* to *Pleurocera*, and that Hannibal therefore had made an unlawful type designation.

Question : Can Walker's designation of *P. acuta* as type of *Pleurocera* be upheld?

Remarks : Opinions vary as to whether *P. verrucosa* falls within the terms of Rafinesque's 1818 definition. I am inclined to grant that it does, though if I had mollusk and definition before me unprejudiced by names, I probably would not think to connect them. Walker thinks them incompatible. It is a matter of individual opinion. That *P. verrucosa* would certainly not fall within the terms of Rafinesque's second (1819) definition of *Pleurocera* all admit.

Pleurocera has been universally used for species congeneric with *P. acuta* Raf. since 1872, when Tryon adopted it in a monograph of the family (*Smithsonian Misc. Coll.* No. 253).

(2) *Enclosure No. 2 to Dr. Pilsbry's letter of 15th January* 1925

As to *Pleurocera : P. acuta* Raf. was described from Lake Erie, but it is a widely spread species, very common in the Ohio and upper Mississippi valleys generally. It may well have been one of Rafinesque's 1818 species—in fact he must have seen it time and again—but I believe that there is no actual evidence whatever to connect it with any of his 1818 species. Of the latter, several have names applicable enough to *acuta*, which may be either banded or plain " corneous ", and could be called turreted.

There is no hope of finding any of Rafinesque's specimens of the genus. We have here a set of his Unionidae, but no gastropods ; and in a long acquaintance with practically all the old collections in the country, I never came upon any Rafinesquian specimens other than ours. His own collection is supposed to have been burned.

There is a manuscript by Rafinesque, " Conchologia Ohioensis ", in the U.S.N.M. from which W. G. Binney copied a figure of *Pleurocera* in *Smiths. Misc. Coll.* No. 144 (1865), p. 62, fig. 126. This figure is a fair (or for Rafinesque, unusually good) representation of a two-thirds grown *Pleurocera neglectum* Anthony, which is now considered to be a form of *P. acutum* Raf. Goodrich, who has looked into the matter, considers it a synonym of *P. subulare* Lea, which is now acknowledged to be the same as *P. acutum* Raf. (*Nautilus* Vol. 30, p. 124).

This figure applies to *Pleurocera* as that genus was defined in Rafinesque's second diagnosis. It was so understood by Tryon (*Smith. Misc. Coll.* No. 253, p. 49) and followed by everybody until Hannibal named *P. verrucosa* Raf. as type. The latter is a wholly different shell—and I would not think that any of the 1818 specific names of Rafinesque could apply to it.

5. On 18th January, 1928, Dr. Stiles consulted Dr. Paul Bartsch (then Curator of Mollusks and Cenozoic Invertebrates, United States National Museum, Washington, D.C.) who on 20th January, 1928, replied as follows :—

Glancing merely at the evidence presented here, which seems to be complete, for both Pilsbry and Walker have gone over it, the case appears to me quite plain. Rafinesque in defining *Pleurocera* in 1818, gives such a broad definition that it will hit almost anything in the large conic North American fresh water gastropods. The six names which are associated with this definition are *nude* names and therefore have no status whatever in nomenclature. The genus consequently at its creation had no type. If my interpretation of *Opinion* 46 is correct, then the first species described under the generic name after the creation of a genus without type becomes *ipso facto* the type of that genus. If this is the case, the Rafinesque's *Pleurocera verrucosa* will have to serve for that species [i.e. for the type species], unless Pilsbry makes a strong case, that following the Code will cause greater confusion than getting a special ruling from your Commission.

6. On 8th August, 1928, Dr. Stiles forwarded copies of the papers relating to this case to the under-mentioned specialists with a request for their comments thereon : (1) Dr. B. B. Woodward (London) ; (2) Mr. Frederick Chapman (National Museum, Melbourne, Australia). The replies received from these

specialists were as follows :—

(1) *Reply, dated 23rd August, 1928, received from Dr. B. B. Woodward :*

The type of *Pleurocera* Raf., if the Rules be followed, is clearly *P. verrucosa.*

Rafinesque's genus as defined by him in 1818 and again in 1819 was obviously a composite, while the species named were not described and cannot, therefore, be considered. In 1820 he described *P. verrucosa* and this by the Rules and *Opionion* 46 manifestly becomes the type.

Mr. Bryant Walker asserts that *verrucosa* does not fall within Rafinesque's original diagnosis, while the statement is made, without proof, in one of the appended papers that it might fall within the first definition, but not within that of 1819. Surely, however, the author himself must have had a better idea of his own conception of his genus *Pleurocera* than those who sought to interpret it later, and who unfortunately in subdividing the genus assigned its rightful type to one of the new genera. Hence the present trouble.

(2) *Reply, dated 3rd October, 1928, received from Mr. Frederick Chapman :*

After studying the opinions and literature on the subject of the type of *Pleurocera* Raf., it seems clear by the evidence submitted that, by Article 30, Rule II(g), *verrucosa,* by subsequent designation (by the author himself in this case) becomes the type species.

7. In December 1928, Dr. Stiles wrote to Dr. Pilsbry, stating that he had been collecting the views of specialists on this case and asking, with reference to the concluding portion of his letter of 15th January, 1925 (see paragraph 4 of the present Report), whether Dr. Pilsbry desired to add anything to his application before he (Dr. Stiles) submitted it to the Commission for consideration. Dr. Pilsbry replied, on 20th December, 1928, as follows :—

I have been thinking about the case of *Pleurocera* since receiving your note. It appears to me that the path of least resistance for all concerned would be to rule *Pleurocera verrucosa* Raf. out as a genotype on the ground that it does not agree with the definition and select the later species *Pl. acuta* Raf. as genotype.

Rafinesque's first definition (*Amer. Monthly Mag. and Crit. Rev.* III, 1818, 355) was in rather general terms, but he stated that the mouth was diagonal, *rhomboidal,* the columella flexuous, *entire* (that is, without plaits or other interruptions). In the following year, he added some further characters (*Journ. de Physique,* 1819, 423) (Tryon's reprint p. 25). No described species was mentioned in either paper.

In the comparison below I have used both diagnoses, as it appears only fair to make use of all the data he published for the elucidation of his genus, up to the time when a type would give any other criterion.

Rafinesque's definition of his *Pleurocera verrucosa* differs from the original diagnosis of *Pleurocera* in several important respects, recognised as of generic value before the middle of the last century. I quote two important characters :—

Pleurocera	*P. verrucosa*
" mouth diagonal, crooked, rhomboidal "	[mouth nearly in plain of axis, not rhomboidal]
" ouverture oblique, oblong, base prolongée tordue, sommet aigu "	" base of the opening obtuse "
" Columella flexuous, entire"	" inside lip thickly plaited "
" la columelle qui est lisse et tordue "	

This very well expresses the generic differences in the shells. *Pleurocera* has the base (anterior end) of the aperture produced in a somewhat twisted spout, and the columellar margin is smooth. In *Angitrema verrucosa* the aperture is obtuse at base, and the " inside lip ", or columellar lip, has thick callous deposits above and below, which Rafinesque referred to as plaits (a term formerly much used for such columellar structures). This is directly opposed to the " entire " or " lisse " of his two diagnoses of *Pleurocera.* The aperture of *P. verrucosa* is not rhomboidal, as called for in the original description of *Pleurocera.* This form of aperture is characteristic of *Pleurocera.*

I do not expect you to go into the conchology of the question, but I am sending you specimens so that you may readily see that Rafinesque's first species [i.e. *P. verrucosa*] did not agree with the specifications he had set forth for *Pleurocera.* His later described *P. acuta* does agree.

The group Rafinesque originally intended was doubtless the horn-shaped species common in the Ohio, etc. This is shown by the definitions, the name, and the figure he drew for his " Conchologia Ohioensis " (unpublished), which Binney published in " Land and Fresh Water Shells of N.A. ", part 3, page 62, fig. 126 (*Smithson. Misc. Coll.* No. 144). When he referred the ovate, knobby " *P. verrucosa* " to the genus, probably he had forgotten the characters of his earlier group, or it may be that the devil prompted him.

Pleurocera has never been used for any species of the group of " *P. verrucosa* " except by Rafinesque in this one case, though it was designated type by Hannibal. It has universally been used for the numerous group of horn-shaped species of which *P. acuta* Raf. is a good example. To accept *verrucosa* as type would muddle the names of two large genera, and for the life of me I cannot see who would gain by it.

I have written Bartsch about this, and asked him to consult with you. He has never worked with these fresh-water mollusks, but he knows how universally *Pleurocera* is accepted. I think that, if you could get the consensus of opinion of those dealing with these animals, it would be practically unanimous for conserving the present nomenclature.

8. The case of *Pleurocera* was not placed on the agenda for consideration by the Commission either at its Session held at Padua in 1930, or at that held in Lisbon in 1935, and no reference was made to it on either of these occasions.

9. When, following my election in 1936 as Secretary to the Commission, the records of the Commission were transferred to my custody, I found among them the correspondence relating to the case of *Pleurocera* summarised in paragraphs 3 to 7 above. This case was thereupon allotted the Registered Number Z.N. (S) 83, in the new series then established. Unfortunately, pre-occupation with the serious administrative and financial problems facing the Commission consequent upon the transfer of the Secretariat to London, made it impossible for me to make any progress with this and other old cases before the outbreak of war in Europe in September, 1939, put a stop for the time being to the work of the Secretariat of the Commission. When in 1942 it was found possible to reopen the Secretariat, I devoted myself in the first instance to arranging for the publication in the newly established *Bulletin of Zoological Nomenclature* of all those of the applications awaiting the attention of the Commission which had reached a sufficiently advanced state to permit of that course. It was not until towards the end of 1944 that I was able to turn to those of the outstanding applications on which further inquiries were necessary before they could be placed before the Commission by being published in the *Bulletin*.

10. On reading the papers relating to the present case, it was evident that in 1928—the latest date covered by the correspondence concerned—notwithstanding the fact that *Pleurocera verrucosa* Rafinesque, 1820, was the first nominal species to have been cited under the generic name *Pleurocera* Rafinesque 1818, all interested specialists at that time employed the generic name *Pleurocera* as though the type species was not the above species but was the species *Pleurocera acuta* Rafinesque, 1831. The evidence on this subject was, however, by this time sixteen years old and, as I realised, the situation might easily have changed during that period as the result of the acceptance by specialists of *Pleurocera verrucosa* Rafinesque as the type species of *Pleurocera* Rafinesque. I considered, therefore, that my first step must be to ascertain whether, since 1928 there had been any change in the practice of specialists in regard to the generic name *Pleurocera*.

11. Not myself possessing any first hand knowledge of the group concerned, I asked the late Mr. R. Winckworth (London) whether he had any information throwing light on the current use of the generic name *Pleurocera*. Mr. Winckworth very kindly made a search of the volumes of the *Zoological Record* for the purpose of ascertaining what changes, if any, had occurred in the practice of specialists in this group of fresh-water mollusks. The following is the Report, dated 16th September, 1944, furnished by Mr. Winckworth on the completion of his search of the literature :—

As far as I can gather from references in the *Zoological Record* for 1931 and later years the name *Pleurocera* is still regularly used for the genus typified by *P. acuta*, e.g. by C. Goodrich, "Studies of Pleuroceridae", i-vi (1934–1937) (*Occ. Pap. Mus. Zool. Univ. Michigan*); by H. J. van Cleave, "*Studies on Pleurocera*" (*Nautilus* 46 : 29 (1932) and 47 : 48 (1933)); by E. M. Kindle in 1934 (*Bull. Wagner Free Inst.* 9 : 136); so that Hannibal's observations in 1912 seem to have had no effect.

12. This Report showed that there had been no change since 1928 in the way in which the generic name *Pleurocera* Rafinesque, 1818, was used by interested specialists. The question in 1944 remained therefore substantially the same as it had been in 1928, namely whether the strict application of the *Règles* (by the acceptance of *Pleurocera verrucosa* Rafinesque, 1820, as the type species of this genus) would lead to greater confusion than uniformity, the only difference, as compared with 1928, being that that the strict application of the *Règles* would overthrow the universal practice not of 50 years but of nearly 70 years. The conclusion which I then formed was that a *prima facie* case had been established for the use of the plenary powers by the designation of *Pleurocera acuta*, Rafinesque, 1831, as the type species of *Pleurocera* Rafinesque, 1818. In view, however, of the length of time which had elapsed since the consultations carried out by my predecessor, I felt that it was desirable to carry out further soundings before the case was submitted to the Commission by being published in the *Bulletin*, even though the prescribed "advertisement" procedure, when later carried out (see paragraph 16 below) would afford an opportunity to interested specialists to place their views before the Commission. Accordingly, in January, 1945, I wrote letters to Dr. Harold A. Rehder (Associate Curator, Division of Mollusks, United States National Museum, Washington, D.C.) and Professor H. J. van Cleave (Department of Zoology, University of Illinois, Urbana, Ill., U.S.A.), asking what would be their attitude towards a settlement of this case, under which, for the purpose of avoiding confusion and promoting uniformity, the plenary powers would be used for the purpose of designating *Pleurocera acuta* Rafinesque, 1831, as the type species of the genus *Pleurocera* Rafinesque, 1818. At the same time I wrote to Dr. Pilsbry, the original applicant in this case, putting the same question. The advice received as the result of these further consultations is set out in the following paragraphs.

13. *Advice received from Dr. H. A. Pilsbry (letter dated 13th February*, 1945). The following is the reply which on 5th March, 1945, I received from Dr. Pilsbry in answer to my letter of 24th January, 1945 :

In the matter of a genotype for *Pleurocera* Rafinesque, I still believe that an *Opinion* confirming *P. acuta* Raf. as type of *Pleurocera* would be logical under the conditions existing. As the genus has many species in the eastern U.S. and Canada, such regularisation of current nomenclature would, I think, be accepted gratefully by our fresh-water zoologists.

14. *Advice received from Dr. Harald A. Rehder (memorandum forwarded under date 3rd March, 1945) :* On 26th March, 1945, I received a letter dated 3rd March, 1945, with which Dr. Harald A. Rehder enclosed the following memorandum setting out his views on the question raised in my letter of 24th January. In his covering letter Dr. Rehder stated that the views expressed in the enclosed memorandum represented the view of Dr. Paul Bartsch (see paragraph 5 of the present Report) and that of Dr. J. P. E. Morrison as well as that of himself :

1. The genotype of *Pleurocera* Rafinesque, 1818, must be *Pleurocera verrucosa* Rafinesque by monotypy. The original generic diagnosis by Rafinesque (*Amer. Monthly Mag.* 3(5) 355, Sept. 1818) is sufficiently broad and general to cover both *P. verrucosa* Rafinesque and *acuta* Rafinesque. Walker's principal argument (*Occ. Papers Mus. Zool. Mus. Univ. Michigan*, No. 38, 1917) is therefore based on a faulty premise.

2. The early European workers (Blainville, Rang, Menke, Deshayes, Sowerby, etc.) considered *Pleurocera* Rafinesque a genus of doubtful position, and the name *Ceriphasia* Swainson, 1840, came to be adopted for the group now usually called *Pleurocera*. It was so used by Gray, 1847, H. and A. Adams, 1854, and Chenu, 1859. In this country the elongated shells of this subfamily were all placed in *Melania* until Lea in the decades 1840–1860 began splitting off well-marked groups as genera. Gill in 1863 separated these American shells from the other Melaniids in a distinct subfamily, Ceriphasiinae, a group that Haldeman in the same year raised to family rank, calling it Strepomatidae (after the unpublished Rafinesquean genus *Strepoma*, which he considered to equal *Ceriphasia* ; *Pleurocera* he equated with *Goniobasis* Lea). Tryon in 1863 was the first to use *Pleurocera* Rafinesque for the *caniculata* Say group (the same as the *acuta* Rafinesque group), and he has been generally followed by all subsequent writers except Hannibal (*Proc. malac. Soc. Lond.* **10**, 169, 1912) and Pilsbry (*Nautilus*, 30, 110, 114, 1917), both of whom used *Pleurocera* correctly.

3. It is my opinion that we should adhere to the rules in this case, and that *Pleurocera* should stand, with *verrucosa* Rafinesque as type :—

(1) I am in favour of suspending the rules only in exceptional cases, where, for instance, the names concerned cover large or world-wide groups with a long nomenclatorial history, or where the groups in question play an important role outside of the purely taxonomic field, in medicine (parasitology) for instance, or economic geology (stratigraphy, oil geology, etc.).

(2) The genera concerned here are relatively small and restricted. If we follow the rules, *Pleurocera* will replace *Angitrema* Haldeman, a group of about ten species inhabiting a small circumscribed area from southern Indiana and Illinois through Kentucky and Tennessee to the northern part of Alabama.

(3) The whole subfamily is sadly in need of revision, and, when this is done, its classification will be considerably altered, and changes in the names of genera and their limits will have to be made anyway. One of the members of our staff is undertaking this problem now. There are several other valid names of Rafinesque, not now generally accepted, which will have to be used for certain groups in this subfamily.

(4) We can, I believe, arrive at a greater stability in nomenclature by keeping exceptions to the rules at a minimum. Suspensions set a precedent and I am afraid that, if any leniency in this respect is shown, a flood of requests for suspension to the rules will ensue which, if accepted, will result in greater uncertainty and confusion than stability in nomenclature.

We must remember that our personal preferences and habits as far as the use of certain names goes, should play little part in this question, for there are generations still to come who will not know these prejudices.

15. *Advice received from Professor H. J. van Cleave (letter dated 15th March 1945) :* The following is the reply which on 10th April, 1945, I received from Professor H. J. van Cleave in answer to my letter of 25th January, 1945 :—

I have not had access to the original 1818 description of *Pleurocera* by Rafinesque. If *verrucosa*, the first described species to be assigned to the genus, fails to conform to the generic concept of *Pleurocera*, the designation of *verrucosa* as type of *Pleurocera* by Hannibal would necessitate the rejection of the original concept of the genus.

In the meantime, American authors, whether rightly or wrongly, have followed the practice of accepting the concept of *acuta* as exemplifying the genus *Pleurocera*. The concept of the genus and the association of the name *acuta* as type have become firmly fixed in the literature, in the textbooks, and in the minds of American zoologists.

I am certain that the formal acceptance of *verrucosa* as type of *Pleurocera* would result in widespread confusion. Therefore I favour the retention of the current practice of recognising *acuta* as type of the genus *Pleurocera*. Personally, I am not familiar enough with the original literature to be certain that *verrucosa* would nominally become the accepted type of *Pleurocera* under strict interpretation of the rules. However, I feel certain that the best interests of stability in nomenclature would be served if the Commission and the Congress were to accept *acuta* Rafinesque, 1831, as type of the genus *Pleurocera*, even though in so doing the Commission might find it necessary to exercise their plenary powers to suspend the rules.

16. On 20th November, 1947, an " advertisement " regarding a number of applications received by the Commission for the use of the plenary powers was despatched to *Science* and *Nature*, and was published shortly thereafter. Included in the foregoing " advertisement " was the following item : " Class Gastropoda : to fix *Pleurocera acuta* Rafinesque, 1831, as the type of *Pleurocera* Rafinesque, 1818." No objection to the use of the plenary powers in this manner was lodged with the Commission from any source.

II. The twofold issue involved

17. Two issues are involved in the present case : the first, factual, the second, a question of policy. The first of these issues is : what species is, under the *Règles*, the type species of the genus *Pleurocera* Rafinesque, 1818 ? The second question is whether, if the type species under the *Règles* is different from the species commonly accepted as such, the change in nomenclatorial practice which would follow upon the strict application of the *Règles* in this case would be calculated to cause such confusion that the Commission should step in to stabilise current nomenclatorial practice by using its plenary powers to designate as the type species of the genus *Pleurocera* a species in harmony with the accepted concept of this genus. These questions are discussed separately in the following paragraphs.

18. *Question of the type species of the genus* Pleurocera *Rafinesque*, 1818 : Prior to the meeting at Paris in 1948 of the Thirteenth International Congress of Zoology, there might have been scope for argument as to what species was, under the *Règles*, the type species of the genus *Pleurocera* Rafinesque, 1818, for up to that date the only guidance available for determining the type species of a genus established without any species being cited by name was that afforded by the Commission's *Opinion* 46, which, as anyone who has tried to apply that *Opinion* is aware, and as was recognised by the Commission itself at its Paris Session, is both obscure and in part self-contradictory. An entirely new situation was however, created by the decision taken by the Paris Congress, on the advice of the Commission, to clarify and amend the ruling given in the foregoing *Opinion*, to incorporate in the *Règles* the decision so clarified and amended, and at the same time to cancel *Opinion* 46. Under the decision so taken (1950, *Bull. zool. Nomencl.* **4** *:* 159-160, 346) it is provided that, where a generic name was published prior to 1st January, 1931, and no species was cited by name as referable to the genus so named, the first species subsequently published under that generic name is, or are, to be regarded as the

sole originally included species and therefore that, if on that occasion only one such species was so cited, that species becomes automatically the type species of the genus by monotypy. Turning now to the generic name which forms the subject of the present Report, we find (1) that, when the name *Pleurocera* Rafinesque, 1818, was first published, no species was or were referred to it by name by its original author, and (2) that, when on the first subsequent occasion (1820) this generic name was first published in conjunction with a specific name, the author by whom it was so published (Rafinesque himself) cited only one species under this name, that species being a new species *Pleurocera verrucosa* Rafinesque, 1820. Under the *Règles*, that species is therefore unquestionably the type species of *Pleurocera* Rafinesque, 1818, by monotypy.

19. *Question whether greater confusion than uniformity would result from the acceptance, as the type species of* Pleurocera *Rafinesque*, 1818, *of* Pleurocera verrucosa *Rafinesque*, 1820 (*which is the type species under the* Règles) *in place of* Pleurocera acuta *Rafinesque*, 1831, *the species which has been commonly treated as the type species of this genus :* Having now established that under the *Règles* the type species of *Pleurocera* Rafinesque is a species (*Pleurocera verrucosa* Rafinesque, 1820) which is not considered by specialists to be congeneric with the species (*Pleurocera acuta* Rafinesque, 1831) which has commonly been treated as the type species of this genus, we have to consider a question of an entirely different order, namely whether the strict application of the *Règles* in this case would lead to greater confusion than uniformity. In this field all that it is possible to do is (1) to ascertain, so far as possible, what is the practice followed by workers who have published papers on the group concerned and to collect the views of present day workers, and (2) having done so, to reach the best decision possible in the light of the evidence so afforded.

20. On the question of what is the current practice in regard to this generic name and what are the views of interested specialists, the available evidence shows :—

(1) that it was not until 1912 (*i.e.*, until 94 years after the publication of the name *Pleurocera* Rafinesque, 1818) that it was suggested by Hannibal that under the *Règles* the type species of *Pleurocera* Rafinesque was *Pleurocera verrucosa* Rafinesque, 1820, and not *Pleurocera acuta* Rafinesque, 1831, which had been selected as the type species by Taylor in 1864, and had been accepted as such by subsequent workers ;

(2) that an inspection of the volumes of the *Zoological Record* for the years subsequent to the publication of Hannibal's paper (carried out for the Commission by the late Mr. R. Winckworth) shows that Hannibal's contention was either rejected or ignored by subsequent workers, who continued to treat *Pleurocera acuta* Rafinesque as the type species of the genus *Pleurocera* Rafinesque ;

(3) that two authors who are shown by the *Zoological Record* to have published papers on this group, namely, Dr. H. A. Pilsbry (Phila-

delphia, Pa., U.S.A.) and Professor H. J. van Cleave (Urbana, Ill., U.S.A.), were specially consulted on this question and both emphatically support the use by the Commission of its plenary powers to designate *Pleurocera acuta* Rafinesque, 1831, as the type species of *Pleurocera* Rafinesque, 1818 :—

(*a*) Dr. Pilsbry replying that : " such regularization would, I think, be accepted gratefully by our freshwater zoologists " ;

(*b*) Professor van Cleave replying : " I am certain that the formal acceptance of *verrucosa* would result in widespread confusion. Therefore, I favour the retention of the current practice of recognizing *acuta* as the type of the genus *Pleurocera*;"

(4) that Dr. Harald A. Rehder (Washington, D.C., U.S.A.), who was also consulted, replied that he favoured the strict application of the *Règles* in this case, partly on the ground that the genera concerned were relatively small and restricted but mainly on the ground that, in his opinion ; " We can arrive at a greater stability in nomenclature by keeping exceptions to the rules at a minimum." Dr. Rehder added that his views in this matter were shared by Dr. Paul Bartsch and Dr. J. P. E. Morrison;

(5) that, although the possible use of the plenary powers to designate *Pleurocera acuta* Rafinesque, 1831, as the type species of the genus *Pleurocera* Rafinesque, 1818, was notified to " Science " and " Nature " in November, 1947, and was published in those journals shortly thereafter, no objection of any kind to the use of the plenary powers in the manner proposed was subsequently received from any source.

II. Conclusions and recommendations

(*a*) *Conclusions*

21. In submitting the present Report to the International Commission on Zoological Nomenclature for its consideration, I summarize my principal conclusions as follows :—

(1) Under the *Règles* the type species by monotypy of the genus *Pleurocera* Rafinesque, 1818 (a genus established without any included species cited by name) is *Pleurocera verrucosa* Rafinesque, 1820 (the sole species cited under the generic name *Pleurocera* on the first occasion on which any nominal species was so cited).

(2) The generic name *Pleurocera* Rafinesque is currently used as though the type species of the genus so named were *Pleurocera acuta* Rafinesque, 1831, that species having in fact (though erroneously) been selected as the type species by Taylor in 1864.

(3) The species *Pleurocera verrucosa* Rafinesque, 1820, and *Pleurocera acuta* Rafinesque, 1831, are not currently regarded by specialists as congeneric with one another.

(4) In consequence of (3) above, the strict application of the *Règles* in the present case would lead to the transfer of the generic name *Pleurocera* Rafinesque (which forms the basis of a family name PLEUROCERIDAE or, more correctly, PLEUROCERATIDAE) from the genus which at present is known by that name to a genus to which that name has not hitherto been applied.

(5) Two specialists in the group concerned (Pilsbry ; van Cleave) consider that in order to prevent confusion, the species *Pleurocera acuta* Rafinesque, 1820, at present currently accepted as the type species of the genus *Pleurocera* Rafinesque, 1818 should be standardised as such ; one specialist (Rehder), who was specially consulted, is opposed to the use of the plenary powers in the present case, partly because the group is relatively small but mainly on the general ground that, in his view, stability in nomenclature will be best arrived at by keeping exceptions to the *Règles* as few as possible. The case has been duly advertised and no other specialist has lodged any objection to the use of the plenary powers for the purpose of designating *Pleurocera acuta* Rafinesque, 1820, as the type species of the genus *Pleurocera* Rafinesque, 1818.

(6) The position is thus that the use of the plenary powers in the present case is advocated by two specialists who have published on this group and who claim that this view is shared by other workers in the group concerned ; none has claimed that the *Règles* could be strictly applied in the present case without causing confusion in the group concerned ; three other malacologists are opposed to the use of the plenary powers in this case on grounds not directly connected with the question whether the immediate effect of applying the *Régles* strictly in the present case will or will not lead to greater confusion than uniformity in the nomenclature of the group concerned.

(7) In view of (5) and (6) above, it appears to me to be clear that some confusion would certainly arise if the *Règles* were to be strictly applied to the generic name *Pleurocera* Rafinesque, 1818. The question which has next to be considered is whether the degree of confusion so caused would be likely to be greater than the uniformity obtained by applying the *Règles* strictly in this case, and therefore whether this is a case in which it would be appropriate for the International Commission on Zoological Nomenclature to use its plenary powers to prevent that confusion from arising.

(8) In considering the question raised in (7) above, it is necessary to pay strict regard to the purposes for which in 1913 the International Congress of Zoology conferred plenary powers upon the Inter-

national Commission on Zoological Nomenclature and, in doing so, to note that one of the purposes expressly stipulated by the Congress was the avoidance of confusing transfers of names from one taxonomic unit to another. In the present case the strict application of the *Règles* would involve such a transfer, for the generic name *Pleurocera* Rafinesque, 1818, would need to be transferred from the genus to which it has for long been applied to a genus which has hitherto been known by some other name.

(9) Having regard to the evidence set forth in the present Report and summarised in (5) and (6) above, I have reached the following conclusions :—

(*a*) that, unless there has been any material change in the situation since this case was " advertised " in 1947, greater confusion than uniformity would arise from the strict application of the *Règles* to the generic name *Pleurocera* Rafinesque, 1818 ;

(*b*) that, in view of (*a*) above and having regard also to the fact that in the present case the strict application of the *Règles* would lead to a result (the transfer of a name from one taxonomic unit to another), the prevention of which was one of the express purposes for which the plenary powers were instituted, the proper course in the present case would be for the International Commission on Zoological Nomenclature to use its plenary powers for the purpose of designating as the type species of the genus *Pleurocera* Rafinesque, 1818, the species (*Pleurocera acuta* Rafinesque, 1831) currently accepted as such.

(*b*) *Recommendation*

22. In the light of the conclusions set forth above, I recommend that the International Commission Zoological Nomenclature should :

(1) use its plenary powers—

(*a*) to set aside all designations or selections of type species for the genus *Pleurocera* Rafinesque, 1818, made prior to the decision now proposed to be taken ;

(*b*) to designate *Pleurocera acuta* Rafinesque, 1831, to be the type species of the foregoing genus :

(2) place the generic name *Pleurocera* Rafinesque, 1818 (type species, by designation under the plenary powers under (1) (*b*) above : *Pleurocera acuta* Rafinesque, 1831) on the *Official List of Generic Names in Zoology* ;

(3) place the trivial name *acuta* Rafinesque, 1831 (as published in the binominal combination *Pleurocera acuta*) on the *Official List of Specific Trivial Names in Zoology.*

PROPOSED VALIDATION OF "APHIDIUS" NEES, 1818 (CLASS INSECTA, ORDER HYMENOPTERA) UNDER THE PLENARY POWERS

By W. D. HINCKS
(*Department of Zoology, University Museum, Manchester, England*)

(Commission's reference Z.N.(S.)149)

The well-known genus *Aphidius* Nees, 1818, was established in *Nova Acta Acad. Caes. Leop. Carol.* **9** : 302, for two species, namely *Bracon picipes* Nees, 1811, *Mag. Ges. Nat. Fr.*, Berlin **5** (1) : 28, and *Bracon exoletus* Nees, 1811, *ibid.* **5** (1) : 30.

Ichneumon aphidum Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 568, was selected as the type species by Curtis, 1831 (*Brit. Ent.* **8** : 383) but this selection is invalid since that species was not originally included in the genus by Nees. Foerster's selection (1862, *Verh. naturh. Ver. preuss. Rheinl.* **19** : 248) of *Aphidius rosae* Haliday, 1833 (*Ent. Mag.* **1** : 261) as the type species is untenable for the same reason.

Viereck, 1914 (*Bull. U.S. Nat. Mus.* **83** : 14) stated that the type species of *Aphidius* Nees was *Bracon picipes* Nees, 1811, but as this is a *species inquirenda*, he preferred to follow Foerster's interpretation.

In 1942, Essig published a work under the title of "College Entomology" (New York, The Macmillan Company), in which he used (: 644) the family name INCUBIDAE for APHIDIIDAE and (: 645) sank *Aphidius* Nees as a synonym of *Incubus* Schrank, 1802.

Incubus Schrank, 1802, was established in *Fauna boica* **2** : 315, for *Ichneumon aphidum* Linnuaes, 1758, *Syst. Nat.* (ed. 10) **1** : 568, and is monotypical. This genus is identical with *Aphidius* Nees but the name *Incubus* Schrank has never previously been used. The replacement of *Aphidius* Nees by the obsolete name *Incubus* Schrank and the alteration of the family name from APHIDIIDAE to INCUBIDAE would clearly cause more confusion than uniformity. This seems to me therefore a case where the International Commission on Zoological Nomenclature could properly exercise their plenary powers to prevent confusion from arising in the nomenclature of this group.

The identity of neither of the two species originally included by Nees in the genus *Aphidius* Nees is altogether free from doubt, though personally I consider that *Bracon picipes* Nees can properly be identified with *Aphidius avenae* Haliday, 1834, *Ent. Mag.* **2** (1) : 99. This is the view taken by the former leading authority, Marshall (1896, *in* André, *Spec. Hymen. Eur.* **5** (1) : 574), though it is true that on that occasion Marshall overlooked the prior description (1811) of Nees, as will be noted from the following quotation : "Le synonyme *picipes* Nees, portant la même date que le nom spécifique imposé par Haliday, la priorité reste dans le doute ; j'ai donc préféré l'auteur

de la meilleure description." The first author to introduce the doubt reflected by Viereck, as mentioned above, was the cataloguer Dalla Torre, 1898, *Cat. Hymenopt.* **4** : 5.

If the rules are to be suspended for the purpose of validating the name *Aphidius* Nees, 1818, it is very desirable that at the same time the International Commission should designate as the type species of this genus a species the identity of which is free from doubt, for, in the case of a group of species of considerable economic importance such as that now under consideration, it is important to secure that there shall be no opportunity for doubt by reason of the nomenclature employed. The most appropriate type species for the genus *Aphidius* Nees, 1818, appears to me to be *Aphidius avenae* Haliday, 1834, (*a*) because the type specimen of this species is in the British Museum (Natural History) and therefore readily available for consultation and (*b*) because that species (as already stated) is almost certainly identical with *Bracon picipes* Nees, 1811, the species which, under the Code, is the type species of the genus *Aphidius* Nees.

The difficulties in the present case would, therefore, be completely solved if the International Commission on Zoological Nomenclature, acting under their plenary powers, were to (i) suppress the name *Incubus* Schrank, 1802, (ii) validate *Aphidius* Nees, 1818, (iii) designate *Aphidius avenae* Haliday, 1834, as the type species of *Aphidius* Nees, 1818, (iv) place the name *Aphidius* Nees, 1818 (gender masculine), and with the above species as its type species, on the *Official List of Generic Names in Zoology*, (v) place the trivial name *avenae* Haliday, 1834 (as published in the binominal combination *Aphidius avenae*), on the *Official List of Specific Trivial Names in Zoology*, and (vi) place the generic name *Incubus* Schrank, 1802, on the *Official Index of Rejected and Invalid Generic Names in Zoology*.

ON THE PROPOSED VALIDATION OF "APHIDIUS" NEES, 1818 (CLASS INSECTA ORDER HYMENOPTERA) UNDER THE PLENARY POWERS

By E. O. ESSIG
(*Division of Entomology and Parasitology, University of California, Berkeley California*)

(Extract from a letter dated 20th October, 1943, from Professor Essig to the Secretary to the International Commission)

(Commission's reference Z.N.(S.)149)

I very greatly appreciate your kind letter of 22nd September, in which you indicate that application has been made for the suspension of the Rules for the purpose of suppressing the name *Incubus* Schrank and for validating *Aphidius* Nees.

I heartily recommend this procedure. I was very hesitant to make the radical changes which appear in "College Entomology," but I reasoned that only by so doing can these matters be permanently straightened out.

ON THE QUESTION OF THE AVAILABILITY OF THE GENERIC NAME " LEPTOPSYLLA " ROTHSCHILD & JORDAN, 1911 (CLASS INSECTA, ORDER SIPHONAPTERA)

By KARL JORDAN, Ph.D., F.R.S.
(*British Museum (Natural History), Zoological Museum, Tring*)

(Commission's reference Z.N.(S.)166)

I petition the International Commission to terminate a controversy regarding the correct generic name for the House-Mouse Flea. This species was first described as *Pulex segnis* by Schönherr in 1811, *K. Vet. Acad. Nya Handl.* **32** (2) : 98. As this flea is frequently referred to in the literature of Public Hygiene as *Ctenopsyllus segnis* and also as *Leptopsylla segnis*, it is a matter of practical importance that the International Commission should decide which of these generic names is the correct one for this species.

The name *Ctenopsyllus* appears for the first time in print in Kolenati, 1856, *Die Parasiten der Chiroptern* : 31. Kolenati's book was issued in identical form at Brünn in 1856 and at Dresden in 1857. The latter is the issue usually found and in consequence new names published by Kolenati in this work are commonly (but erroneously) dated " 1857 " instead of " 1856 ". There is a copy of the scarce original Brünn issue in the library of the Zoological Museum, Tring. Kolenati there described several species of bat-flea, employing for them the generic name *Ceratopsyllus* Curtis, 1838, *Brit. Entom.* **15** (180) : *errata* in Index (an emendation of *Ceratophyllus* Curtis, 1831, *Guide brit. Ins.* (7) : 201).

In a footnote to the name *Ceratopsyllus* Curtis, Kolenati said (: 31) (translation) : " From κερας, κερατος horn and ψύλλος flea, should really be called *Ctenopsyllus* from κτεις, κτενος the comb, because the species bear combs, so-called ctenidia, at the posterior margin of the pro- and meta-notum and often also on some terga, by means of which they hold on, hairs of the host being caught in between when the combs are pressed on to the segments ".

In 1863, *Hor. Soc. ent. ross.* **2** : 37, Kolenati gave to a " subgenus " of *Ctenophthalmus* Kolenati, 1857, *Paras. Chiroptern* : 33, the name *Ctenopsyllus*, ignoring altogether the fact that he had previously published this name in 1856. On this occasion, Kolenati described two species, the first as *Ctenopsyllus quadridentatus* (which is the same species as *Pulex segnis* Schönherr, 1811, referred to above), the second as *Ctenopsyllus bidentatus*, a distinct and at that time new species. The first of these species was selected as the type species of this genus by Baker in 1904 (*Proc. U.S. nat. Mus.* **27** : 371) (as *Pulex musculi*).

In 1911, *Novit. zool.* **18** : 85, Jordan and Rothschild published the name *Leptopsylla* nom. nov. for " *Ctenopsyllus* Kolenati, 1862 *nec* 1856 " (the first of these years should have been cited as " 1863 " not " 1862 "). The type species of this genus by original designation is *Pulex musculi* Dugès, 1832 (*Ann. Sci. nat.* **27** : 163), which is the same species as *Pulex segnis*. This name *Leptopsylla* for the House-Mouse Flea and some similar species has been rejected by some specialists and accepted by others.

The question on which an *Opinion* from the Commission is now desired is

whether the action by Jordan and Rothschild, 1911, was correct or wrong. In other words, was *Ctenopsyllus* published in 1856 as another name for *Ceratopsyllus* Curtis, 1838, and is it available from 1856 ?

The decision one way or the other will affect a number of similar cases, where authors have tentatively published names which they thought were " better " or otherwise more suitable names than names already published.

ON THE RELATIVE MERITS OF THE GENERIC NAMES " CTENOPSYLLUS " KOLENATI, 1863, AND " LEPTOPSYLLA " JORDAN AND ROTHSCHILD, 1911, AS THE GENERIC NAME OF THE HOUSE-MOUSE FLEA (CLASS INSECTA, ORDER SIPHONAPTERA)

By FRANCIS HEMMING, C.M.G., C.B.E.
(*Secretary to the International Commission on Zoological Nomenclature*)

(Commission's reference Z.N.(S.)166)

The point raised by Dr. Karl Jordan regarding the relative merits from the nomenclatorial point of view of the generic names *Ctenopsyllus* Kolenati and *Leptopsylla* Jordan and Rothschild turns on the question whether the manner in which the name *Ctenopsyllus* was published by Kolenati in 1856 was such as to confer availability upon it under the *Règles*. If the answer to this question is in the affirmative, the name *Ctenopsyllus* Kolenati, 1856, applies not to the House-Mouse Flea, but to a group of Bat Fleas. If, on the other hand, the answer to the foregoing question is in the negative, the name *Ctenopsyllus* ranks for purposes of priority as from Kolenati, 1863, and is applicable to the House-Mouse Flea. This question was reviewed in 1911 by Jordan and Rothschild, who came to the conclusion that, despite the unsatisfactory way in which the name *Ctenopsyllus* had been published by Kolenati in 1856, that name has nevertheless acquired rights under the Law

of Priority in virtue of having been so published, and was accordingly applicable to the Bat Fleas. In the light of this conclusion, the name *Ctenopsyllus* Kolenati, 1863, as applied to the House-Mouse Flea became an invalid (because junior) homonym of the name *Ctenopsyllus* Kolenati, 1856. The House-Mouse Flea was thus left without an available generic name and it was to meet this deficiency that Jordan and Rothschild published the name *Leptopsylla*. The Commission are now asked to decide whether the argument advanced by Jordan and Rothschild was in accordance with the *Règles* or not and therefore whether the name *Ctenopsyllus* Kolenati, 1863, or the name *Leptopsylla* Jordan and Rothschild, 1911, is the generic name properly applicable to the House-Mouse Flea.

2. The question with which we are here confronted is the status to be accorded under the *Règles* to a name that was rejected by its author at the time when it was first published and was treated by that author as a synonym of some other name. One aspect of this case was dealt with by the Commission as long ago as 1907 when they rendered *Opinion* 4, in which they ruled that a manuscript name acquired availability under the *Règles* when it was published with an " indication ", irrespective of whether or not the author by whom it was published himself accepted the name as an available name or whether he sunk it as a synonym of some other (older) name. Another aspect of this case was dealt with by the Commission in 1912 when in *Opinion* 49 they ruled that the status of a name was not to be regarded as being adversely affected by reason of the name having been published conditionally. Both the foregoing interpretations of Article 25 were incorporated into the *Règles* by the Thirteenth International Congress of Zoology at its meeting held in Paris in 1948. (For the terms of the decision in relation to *Opinion* 4, see Proceedings of the Commission, Paris Session, 6th Meeting, Conclusion 4, and for that in relation to *Opinion* 49, *ibid.* 6th Meeting, Conclusion 17, published in 1950, *Bull. zool. Nomencl.* **4** : 144-146.)

3. The name *Ctenopsyllus* was admittedly published by Kolenati in 1856 as a conditional name, but, as we have seen, this does not deprive that name of any rights which it may otherwise possess under the Law of Priority. It is agreed also that, when Kolenati published this name in 1856, he himself rejected it and treated it as a synonym of an earlier name (*Ceratophyllus* Curtis, 1838) ; but, as we have seen, the rejection of a name by its original author at the time of its first publication does not deprive that name of its rights under the Law of Priority if as here (through its identification with *Ceratophyllus* Curtis) it is published with an indication. We see therefore that the name *Ctenopsyllus*, as published by Kolenati in 1856, cannot be rejected either on the ground that it was published conditionally or on the ground that it was rejected by its original author. It was in fact published as an emendation (on etymological grounds) of an earlier generic name ; its status from the present point of view is therefore the same as that of any other emendation. Now we know from the decision in *Opinion* 148, since clarified and incorporated into the *Règles* (Proceedings of the Commission, Paris Session, 6th Meeting, Conclusion 44, see 1950, *Bull zool. Nomencl.* **4** : 163) that " a generic name is to be rejected as a homonym, where the word of which that

name consists has previously been published as an emendation, whether valid or invalid, of another generic name ". It is clear from the foregoing passage, which is a direct quotation from the Paris Proceedings, that the *Ctenopsyllus* as published by Kolenati in 1856 renders invalid, as a junior homonym, any later use of the word *Ctenopsyllus* as a generic name applied to some other group, for example, the later use of this name by Kolenati himself in 1863. (It is of interest to note that at Paris, 9th Meeting, Conclusion 20, the record of which was published in 1950, *Bull. zool. Nomencl.* **4**: 256, the Commission considered a case relating to a trivial name, which resembles very closely the case here under discussion, for that was a case where (as here) an author (Strand) published a name (*aegyptiellus*) which he in fact rejected (just as in 1856 Kolenati rejected the emendation *Ctenopsyllus* which he then published for the first time). In this case the Commission ruled that the trivial name *aegyptiellus* having been published by Strand with an indication was not damnified by reason of having been rejected by its original author at the time when it was first published, and, therefore, that this trivial name was available, as from the date on which it had been first published by Strand.)

4. For the reasons set forth above, it is clear that Jordan & Rothschild acted in strict accordance with the *Règles*, when, in 1911, they rejected *Ctenopsyllus* Kolenati, 1863, as an invalid homonym of *Ctenopsyllus* Kolenati, 1856, and therefore those authors were fully justified when they gave a new generic name (*Leptopsylla*) for the House-Mouse Flea.

5. In his application in relation to this case Dr. Jordan raised a point of importance, which requires to be considered, when he observed that the name to be given to the House-Mouse Flea was a matter of concern to workers in the field of Public Hygiene, some of whom had adopted the name *Leptopsylla*, while others had continued to use the name *Ctenopsyllus*. From this point of view, the present case resembles closely the case of the names *Bilharzia* and *Schistosoma* dealt with by the Commission in Paris (Paris Session, 12th Meeting, Conclusion 11, for the record of which see 1950, *Bull. zool. Nomencl.* **4**: 319–323). In that case the Commission was satisfied that the name *Bilharzia* had been validly published with an indication by Meckel von Hemsbach in 1856, and therefore had priority over the name *Schistosoma* Weinland, 1858, but decided that, in view of the view of the fact that in medical literature the name *Schistosoma* had come to be much more widely used than the name *Bilharzia*, the balance of advantage lay in suppressing the latter name under their plenary powers, and in validating the name *Schistosoma*. In these circumstances, it appeared to me desirable to obtain a preliminary expression of opinion from a leading Public Hygiene authority, in order to ascertain whether on public hygiene grounds there was any case for using the plenary powers in order to validate *Ctenopsyllus* Kolenati, 1863 (by suppressing the earlier name *Ctenopsyllus* Kolenati, 1856) in preference to applying the *Règles* in this case in the ordinary way.

6. At this point therefore, I consulted Sir John Charles, Principal Medical Officer of Health, Ministry of Health in the United Kingdom, who replied (on 17th August, 1950) that " though references to the house mouse flea in

Public Health literature are not numerous, there seems to be general agreement with the name of *Leptopsylla segnis*, and that so far as the literature of public hygiene is concerned, it would be preferred."

7. In these circumstances it appears to me that there is no case for the use of the plenary powers and that the appropriate course would be for the Commission, after noting that the name *Ctenopsyllus* Kolenati, 1863 (applied to the House Mouse Flea) is an invalid junior homonym of the name *Ctenopsyllus* Kolenati, 1856 (a name applied to a group of Bat Fleas), (1) to place the generic name *Leptopsylla* Rothschild & Jordan, 1911 (*Novit. Zool.* **18** : 85), (type species, by original designation : *Pulex musculi* Dugés, 1832 (*Ann. Sci. nat.* **27** (106) : 163) (=*Pulex segnis* Schünherr), 1811 (*K. Sv. Vetensk Acad., Nya Handl.* **32** (No. 2) : 98) on the *Official List of Generic Names in Zoology*, (2) to place the generic name *Ctenopsyllus* Kolenati, 1863 (*Hor. Soc. ent. ross.* **2** : 37) on the *Official Index of Rejected and Invalid Generic Names in Zoology*, and (3) to place the trivial name *segnis* Schönherr, 1811 (as published in the binominal combination *Pulex segnis*) on the *Official List of Specific Trivial Names in Zoology*.

PROPOSED USE OF THE PLENARY POWERS TO SUPPRESS THE TRIVIAL NAME "AJAX" LINNAEUS, 1758 (AS PUBLISHED IN THE BINOMINAL COMBINATION "PAPILIO AJAX") COMMONLY BUT INCORRECTLY APPLIED TO THE SPECIES NAMED "PAPILIO MARCELLUS" BY CRAMER IN 1777 (CLASS INSECTA, ORDER LEPIDOPTERA)

By the late A. STEVEN CORBET
(*British Museum (Natural History), London*)

(Commission's reference Z.N.(S.)192)

In Linnaeus' original diagnosis of *Papilio ajax* in 1758, *Systema Naturae* (ed. 10) **1** : 462, the very brief description ("P/apilio/ E/ques/ alis obtuse caudatis concoloribus fuscis : fasciis falvescentibus, angulo ani fulvo") is followed by two citations and an indication of the habitat as follows :—

Raj. ins. 111. *n.* 2

Edw. av. 34

"Habitat in America boreali."

There is no mention of *P. xuthus* in the 10th edition and the description of *P. ajax* is followed by that of *P. machaon.*

There is no mention of *P. ajax* in 1764, *Mus. Lud. Ulr.* but in 1767, in the 12th edition (*Syst. Nat.* (ed. 12) **1** (2) : 750) the description of *P. ajax* is repeated precisely as in the 10th edition. On the following page in the 12th edition, appears the first description of *P. xanthus* (corrected to *xuthus* in the index), with "Habitat in India orientali" and "Simillimus P. Ajaci." The diagnosis of *P. xuthus* is more detailed than that of *P. ajax* and there are no references to works of other authors.

While there has been no doubt regarding the identity of *P. xuthus*, much confusion has been associated with the determination of *P. ajax* ; in fact, so involved had the position become that Rothschild and Jordan abandoned the name in their "Revision of the American Papilios" in 1906 (*Novit. zool.* **13** : 413–414). This confusion would not have arisen, had the Linnean collection been adequately studied, for therein is an undoubted Linnean specimen, low-set on a long, black, headless pin of the type which I called a "Cantonese pin" in an earlier paper (Corbet, 1942, *Proc. R. ent. Soc. Lond.* (B) **11**:91), and labelled "ajax" in Linnaeus' writing and "xuthus 751" by Smith. The specimen in question is *P. xuthus* and the pin may be taken as evidence of its Cantonese origin ; almost certainly, it is one of the butterflies obtained by Peter Osbeck when he visited Canton in 1751.

In Linnaeus' own copy of the 10th edition of the *Syst. Nat.*, there is the following manuscript note added to the description of *P. ajax*.

> " Simillimus Machaon, sed magis flavis. Valde affinis Ajax, Machaon, Podalirius, Antilochus, Protesilaus."

P. ajax is among the species marked by Linnaeus as being in his collection in his own copy of the 12th edition, while *xuthus* is not so marked.

There is nothing in the description of *P. ajax* in either the 10th or 12th editions, which conflicts with what must clearly be regarded as the type specimen. It appears that Linnaeus described this same species again under the name *xanthus* (recte *xuthus*) from the same or another specimen, but this is not a unique occurence for both *P. aonis* and *P. lemonias* were described in the 10th edition from specimens of the dry-season form of the same species of *Precis* and, in the same volume, Linnaeus published names for three nominal " species ", based upon specimens of two species only (*Papilio perius* and *P. hylas*). Unfortunately, however, the Linnean collection was not available to the early authors and, even if it had been, no convincing conclusion could have been drawn without research into the manner of setting, pinning and labelling, in order to judge the authenticity of any supposed Linnean specimens. The early entomologists were obliged to identify *P. ajax* on the basis of the meagre description and the conflicting citations and in consequence mistakes were inevitable.

The Linnean description of *P. ajax* applies equally well to several species of *Papilio* (*sensu stricto*) of similar facies and the references to Edwards and Ray, do nothing to clarify the position. The reference to Edwards, 1743, *Natural History of Uncommon Birds* **1** : 34, t. 34 given in the 1758 description of *P. ajax* was cited under *P. protesilaus* by Linnaeus in 1764, *Mus. Lud. Ulr.*, and yet again referred to *P. ajax* in 1767 in the 12th edition of the *Syst. Nat.* According to Rothschild and Jordan (1906, *Novit. zool.*, **13** : 413), Edwards' figure cannot be reconciled with the Linnean description of *P. ajax* and, in fact, represents the American species well known as *Papilio marcellus* Cramer [1777]. The reference to Ray, 1710, *Historia Insectorum* : 111 (no. 2), depends on a reference by the latter author to a rather fantastic figure in Moufet, 1634, *Insectorum sive Minimorum Animalium Theatrum* : 98 which Rothschild and Jordan identified as the American species *P. glaucus* Linnaeus, 1758. The coloured figure labelled " ajax 26 " in Clerck, 1764, *Icones Insectorum rariorum* **2 :** t. 33. fig. 3 (a figure which was certainly seen by Linnaeus before publication) represents yet another American species, *P. polyxenes* Fabricius, 1775.

In view of this confusion of figures by Linnaeus, Rothschild and Jordan considered the wisest course was to discard the name *ajax* altogether ; on the other hand, Holland (1931, *The Butterfly Book*, Revised Edition : 321) continued to employ the name for the species *P. marcellus* Cramer, to which the name *ajax* had been applied since Linnaeus' day. In the interests of stability of

zoological nomenclature, it is clearly undesirable to leave the matter as it stands. Either the name *ajax* should be employed for the species which would be so designated under the usual procedure based on the *Règles Internationales* or application should be made to the International Commission on Zoological Nomenclature for a suspension of the Rules in order to invalidate the name *ajax* on the grounds that a strict enforcement of the law of priority would result in greater confusion than uniformity.

In my opinion, there is no doubt that the name *Papilio ajax* Linnaeus, 1758, should be applied to the oriental species universally known as *Papilio xuthus* Linnaeus, 1767. In previous papers I have attempted the identification of the Linnean names of oriental Rhopalocera by taking as the type specimen of the respective nominal species :

(*a*) the specimen(s) in the Museum of Queen Ludovica Ulrica in the case of species where Linnaeus added the letters " M.L.U.," to his original description. (With a few species marked " M.L.U." in the descriptions, the specimens were missing from the Queen's collection but I found them in the Linnean collection.)

(*b*) the specimen(s) in the Linnean collection when these were identifiable as Linnean with reasonable certainty and where the original description contained no reference to " M.L.U."

(*c*) a figure cited by Linnaeus when the species was not in the Queen's or the Linnean collection. It appears that in only two instances among the oriental butterflies (*P. helena* and *P. eryx*) did Linnaeus rely entirely on figures.

It has been found that, if the above principles are followed, there is little or no trouble regarding the Linnean names of oriental Rhopalocera as these would continue to be employed in the sense used by the older authors. On the other hand, if preference were given to figures cited by Linnaeus over specimens in the Queen's museum and the Linnean collection, ambiguity and uncertainty must follow.

It has been pointed out in a previous paper (Corbet, 1942, *loc. cit* : 91) that, although Sir James Edward Smith added to the Linnean collection after he purchased it, there is no evidence of label-changing and in very few instances is there more than a single pin-hole in the original label. Everything points to the specimen of *P. xuthus* referred to above as having been labelled " ajax " by Linnaeus, and it has every claim to be regarded as the type specimen of *P. ajax* and as such I consider it.

Thus, if the International Rules are followed the species long-known as *P. xuthus* will in future have to be known as *P. ajax* Linnaeus and the former name will sink as a synomym. This would be deplorable, not so much because a well-known name would disappear, but because of the uncertainty which has surrounded the name *P. ajax* in the past.

The name *P. ajax* Linnaeus has been applied almost consistently although, incorrectly, to *P. marcellus* Cramer and a voluminous literature has grown up around this name, and I think it will be conceded that its suppression is in the best interests of entomology. It is accordingly hoped that the International Commission on Zoological Nomenclature will exercise the plenary power conferred upon them by the International Congress of Zoology, and promulgate an *Opinion* to the following effect :—

> The name *Papilio ajax* Linnaeus, 1758, is not to be employed for the species generally known as *Papilio xuthus* Linnaeus, 1767, although it has priority over this latter name, nor is it to be used for any other species.

ON THE PROPOSAL THAT THE TRIVIAL NAME "AJAX" LINNAEUS, 1758 (AS PUBLISHED IN THE BINOMINAL COMBINATION "PAPILIO AJAX") SHOULD BE SUPPRESSED BY THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE UNDER ITS PLENARY POWERS

By FRANCIS HEMMING, C.M.G., C.B.E.
(*Secretary to the International Commission on Zoological Nomenclature*)

(Commission's reference Z.N.(S.)192)

The late Dr. A. Steven Corbet, who at the time of his death was undoubtedly the foremost authority on the Linnean butterflies, has shown that the type specimen of the nominal species *Papilio ajax* Linnaeus, 1758, is still preserved in the Linnean collection in London and that, contrary to the universal belief of all previous workers (none of whom had studied the Linnean collection) the name *Papilio ajax* was not bestowed by Linnaeus upon a Nearctic species but upon the well-known Palaearctic and Oriental species to which Linnaeus himself in 1767 gave the name *Papilio xuthus*, by which it has ever since been known.

On making the foregoing disconcerting discovery, the late Dr. Corbet realised at once the appalling nature of the confusion which would ensue if, after having been applied for nearly two hundred years to Nearctic species, the trivial name *ajax* Linnaeus, 1758 (as published in the binominal combination *Papilio ajax*) were now to be applied to a very well-known species belonging to an entirely different zoo-geographical region, a species, moreover, which had been known by the trivial name (*xuthus* Linnaeus, 1767) currently applied to it ever since that name had been published nearly two hundred years ago. It was for this reason that in 1946 Dr. Corbet submitted to the International Commission on Zoological Nomenclature a request that it should use its plenary powers to prevent the confusion which would be quite inevitable if the *Règles* were to be strictly applied in the present case.

The question which has now to be considered is therefore how best the International Commission could use its plenary powers to secure the desired end. There are two possible courses of action, each of which possesses certain advantages :

(1) to suppress the trivial name *ajax* Linnaeus, 1758, altogether ;

(2) to secure that the foregoing trivial name shall in future apply not to the species (*Papilio xuthus* Linnaeus, 1767) to which, as Dr. Corbet has shown, it properly belongs under a strict application of the *Règles*, but to the Nearctic species to which it is now usually applied.

Course (1) would suffice to secure the principal object in view, namely, to prevent the confusion which would follow if the trivial name *ajax* Linnaeus, 1758, were to replace the trivial name *xuthus* Linnaeus, 1767, for the well-known species to which that name has always been applied. If this course were to be adopted, the Nearctic species to which the name *ajax* Linnaeus, 1758, is currently applied would need to be found a new name.

Course (2), like Course (1), would prevent the confusion which would result from the transfer of the trivial name *ajax* Linnaeus to the species now known as *Papilio xuthus*. In addition, Course (2) would preserve the trivial name *ajax* Linnaeus for the Nearctic species, to which it is commonly applied. Course (2) corresponds exactly to the action taken by the Commission in regard to the trivial name *iris* Linnaeus, 1758 (as published in the binominal combination *Papilio iris*) ; in that case also, Dr. Corbet had brought forward evidence to show that a trivial name (*iris*) invariably applied to a very well-known European species (" The Purple Emperor ") properly applied to an allied, and also very well-known European species (*Papilio ilia* [Schiffermüller and Denis], 1775). In that case, the Commission, in order to prevent the confusion which such a transfer of the trivial name *iris* would inevitably entail, used their plenary powers to direct that this trivial name was in future to apply to the common European " Purple Emperor," and selected a well-known and easily accessible figure of that butterfly to be the figure by which the nominal species *Papilio iris* Linnaeus, 1758 (= *Apatura iris* (Linnaeus, 1758)) was in future to be identified (see 1950, *Bull. zool. Nomencl.* **4** : 540–542). Under Course (2) similar action could be taken to preserve the trivial name *ajax* Linnaeus, 1758, for the North American Swallowtail commonly known by that name.

The question whether or not it is desirable that the trivial name *ajax* Linnaeus, 1758, should be preserved in the manner described above for the species to which that name is commonly used, is a matter of special interest to American lepidopterists, and is accordingly a question on which it would be valuable to the Commission to have the advice of such specialists. It is therefore particularly requested that any lepidopterist who is interested in this subject, should notify his views to the Commission as soon as possible.

PROPOSED USE OF THE PLENARY POWERS TO DESIGNATE " MYTILUS EDULIS " LINNAEUS, 1758, AS THE TYPE SPECIES OF THE GENUS " MYTILUS " LINNAEUS, 1758 (CLASS PELECYPODA, ORDER FILIBRANCHIATA) (PROPOSED VALIDATION OF AN ENTRY IN THE " OFFICIAL LIST " MADE IN *OPINION* 94

By HAROLD E. VOKES

(*Department of Geology, The Johns Hopkins University, Baltimore, Maryland, U.S.A.*)

(Commission's reference Z.N.(S.)193)

The generic name *Mytilus* was proposed by Linnaeus, 1758, with 17 species numbered 205 to 222 inclusive (Linnaeus, 1758, *Systema Naturae*, (ed. 10) **1**: 704–706); the species concerned in this request being *edulis*, No. 215, *cygneus*, No. 218, and *anatinus*, No. 219. No type species was designated nor indicated in this publication.

Lamarck (1799, " Prodrome d'une nouvelle classification des coquilles " : (*Mém. Soc. Hist. nat. Paris* **1799** : 88) cited *M. edulis* as an example, but this cannot be construed as fixing the type species.

Schumacher (1817, *Essai d'un nouveau système de habitations de Vers Testacés* : 107) cites " the figure of a hinge of " *Anodonta anatina* (*Mytilus anatinus* Linnaeus) as type species of the genus *Mytilus*. This selection transfers the generic name *Mytilus* to the fresh-water bivalve *Anodonta* Lamarck, 1799 (*supra cit.* L87, monotype *A. cygneus* (*Mytilus cygeus* Linnaeus)).

Children [April 1823, Lamarck's Genera of Shells : *Quart. J. Sci.* **1823** : 33] selected *Mytilus magellanicus* Lamarck as type of *Mytilus* " Lamarck ". This species was not on the Linnean list and was therefore not available for selection as the type species of *Mytilus* Linnaeus.

Anton (1839, *Verzeichniss der Conchylien* : 17) selected *Mytilus edulis* Linnaeus as the type species of *Mytilus*, and this is apparently the first selection of this species, which is today universally considered as the type species usually with a reference to Gray's citation of 1847. (Gray, J. E., 1847, " A list of the genera of recent mollusca their synonyma and types." *Proc. zool. Soc. Lond.* **15** : 198).

So far as I am aware, no subsequent author has followed Schumacher's selection of *Mytilus anatinus* as the type species of the genus *Mytilus* Linnaeus, and to do so now would result in complete confusion, requiring the substitution of the name *Mytilus* for the fresh-water *Anodonta*, and apparently the proposal of a new name for the group of species which now bear that name ; so far as I am aware, no other name has ever been proposed for the species of the *edulis* group.

Furthermore, both the generic name *Mytilus* Linnaeus, with type species *M. edulis* Linnaeus, and *Anodonta* Lamarck, with type species *A. cygneus* (Linnaeus), have been placed on the *Official List of Generic Names*, under *Opinion* 94. This procedure, however, was clearly the result of inadequate study, since, in the " Statement of Case " issued with this *Opinion*, it is said : " It appears from the reports reaching the Secretary's office that . . . [these] . . . names are valid under the International Rules and that, therefore, they do not have to be adopted as ' nomina conservanda ' under ' Suspension of the Rules '."

From the evidence cited above, the latter statement is clearly inaccurate, and the position of *Mytilus*, with type *Mytilus edulis*, is an equivocal one. It is, therefore, requested that the International Commission on Zoological Nomenclature, using the plenary powers granted it by the International Congress of Zoology at its meeting held at Monaco (1913), suspend the Rules in the International Code of Zoological Nomenclature, and declare *Mytilus edulis* Linnaeus to be the type species of *Mytilus* Linnaeus under such suspension of the Rules.

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